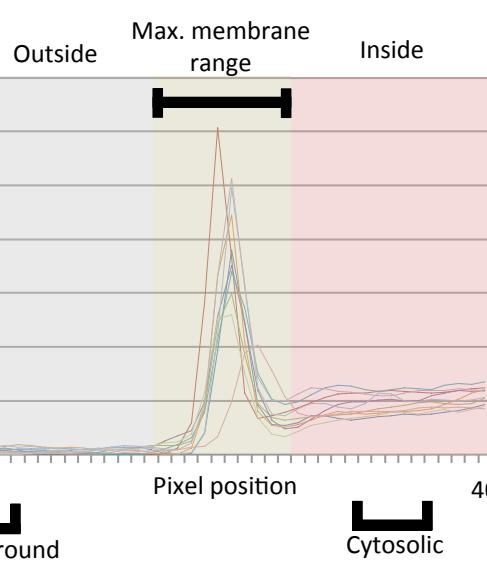
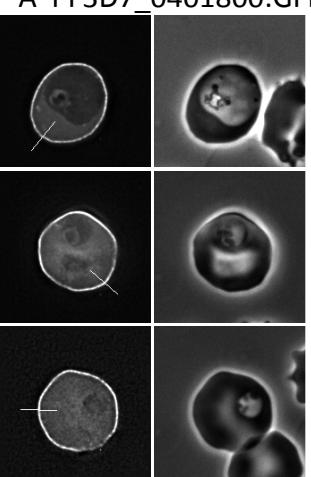
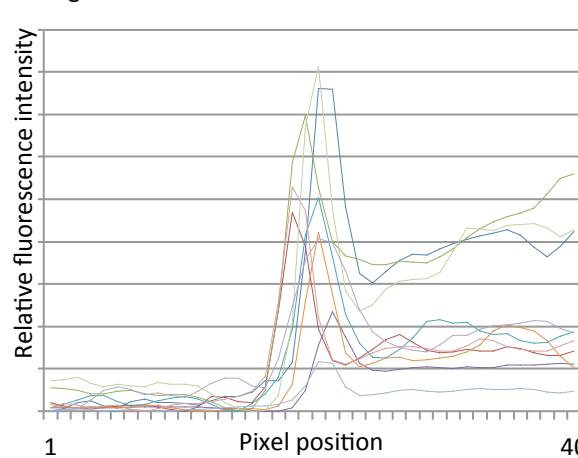
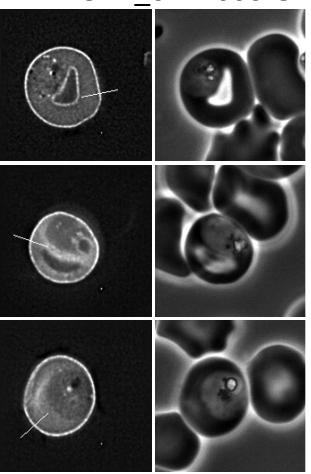


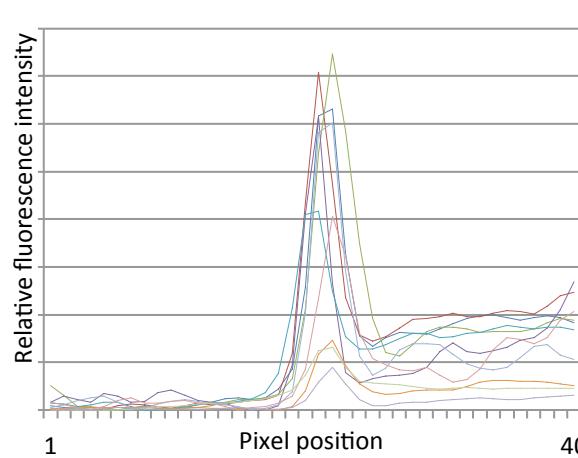
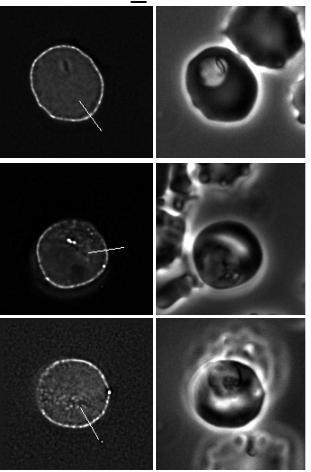
A PF3D7\_0401800:GFP



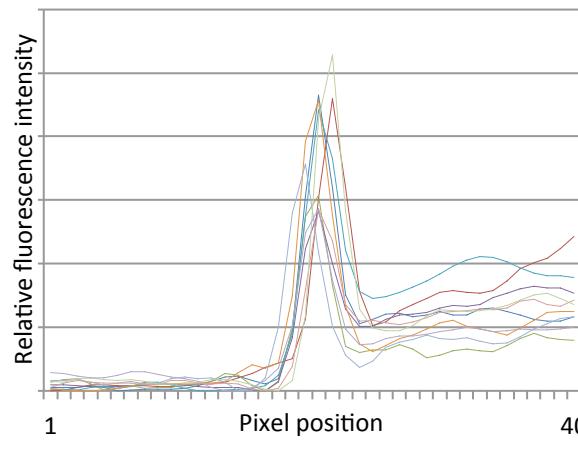
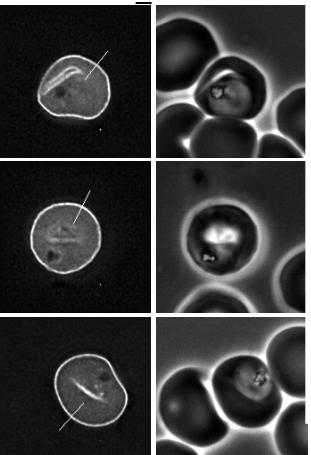
B PF3D7\_0424600:GFP



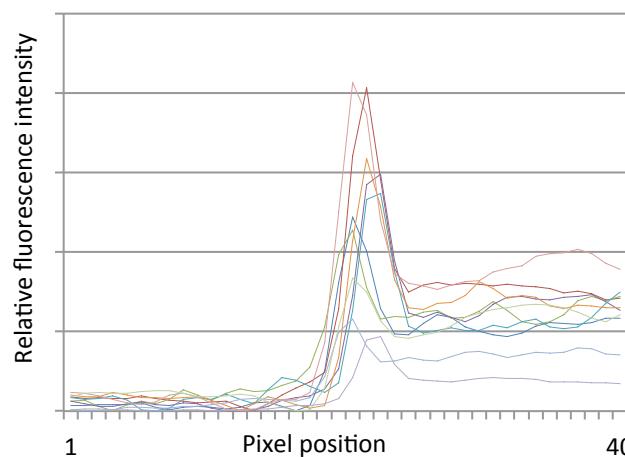
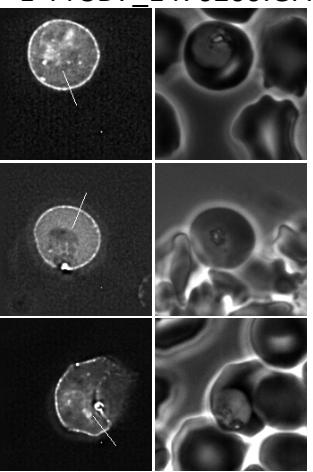
C PF3D7\_0532400:GFP



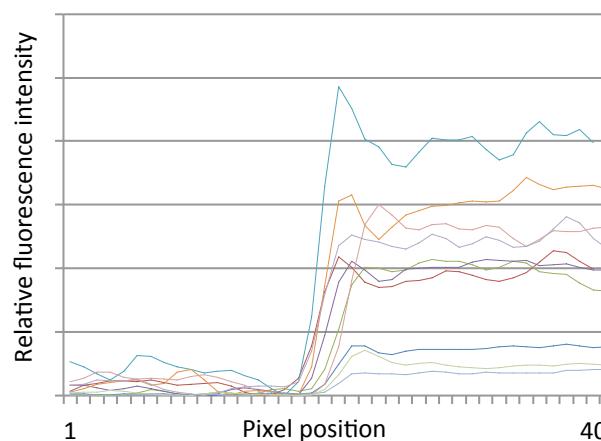
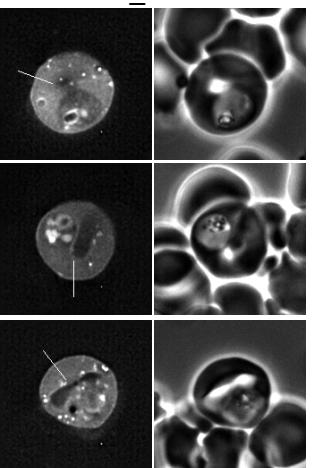
D PF3D7\_1102500:GFP



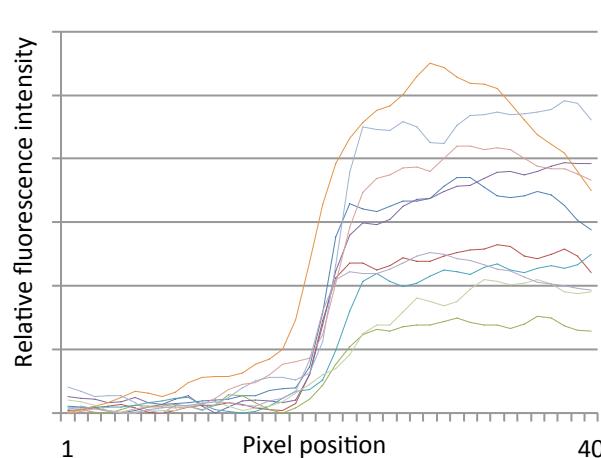
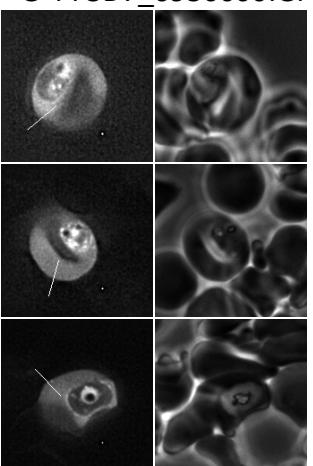
E PF3D7\_1476200:GFP



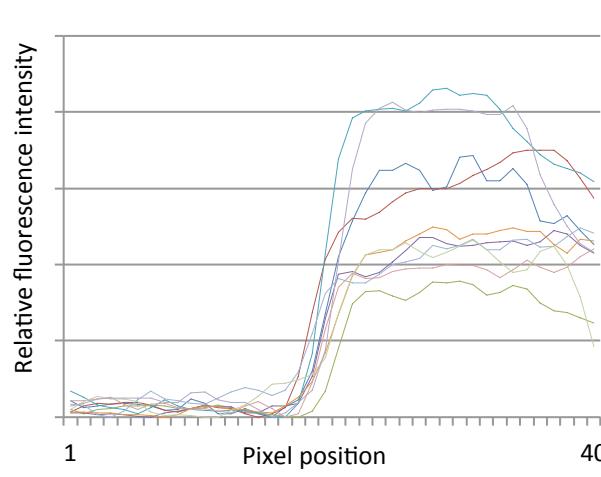
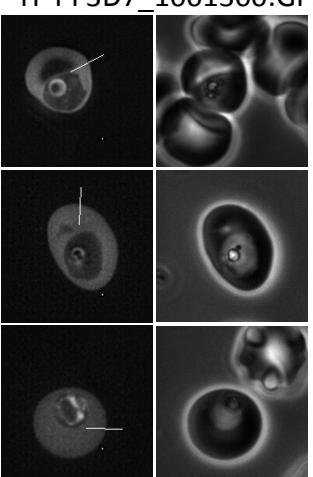
F PF3D7\_0201600:GFP

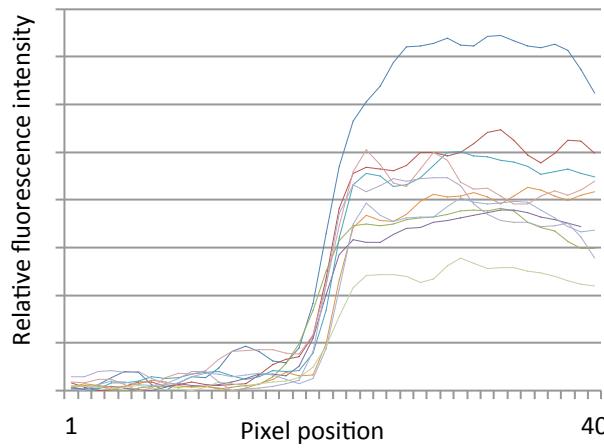
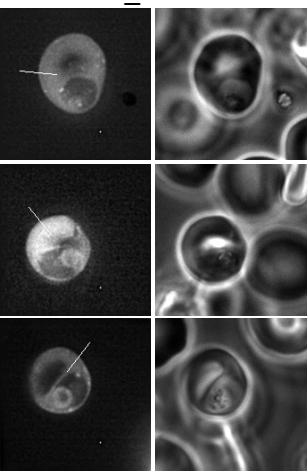


G PF3D7\_0936600:GFP

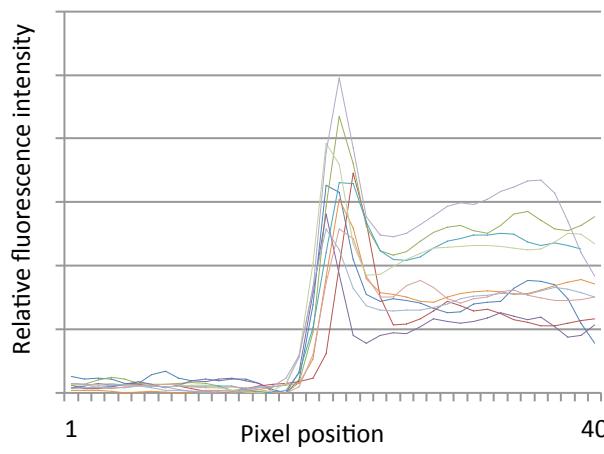
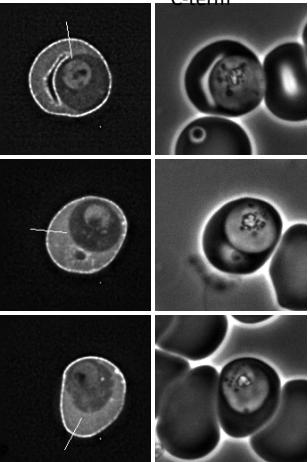


H PF3D7\_1001300:GFP

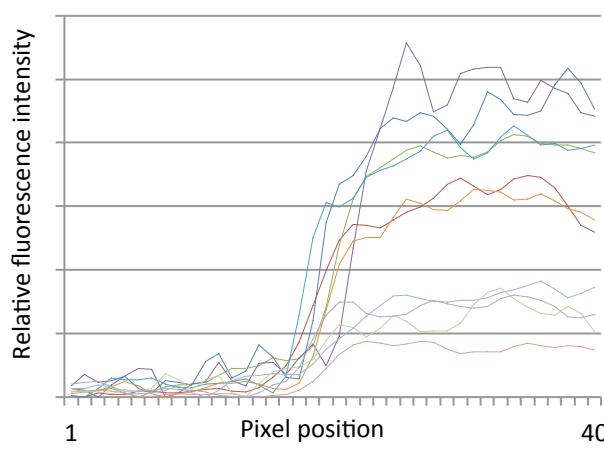
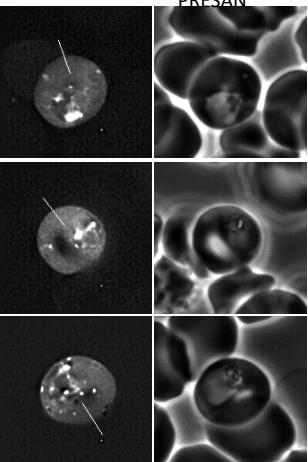




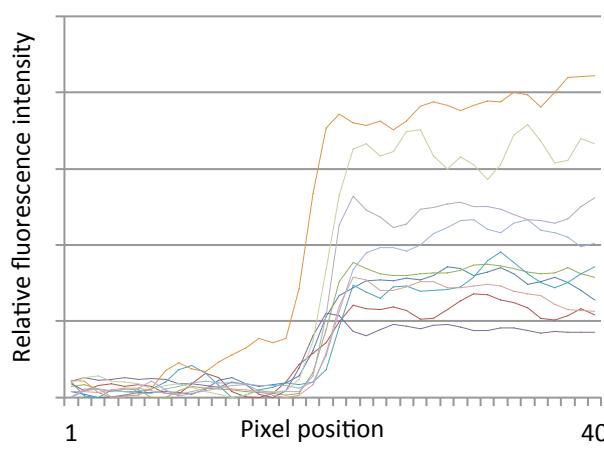
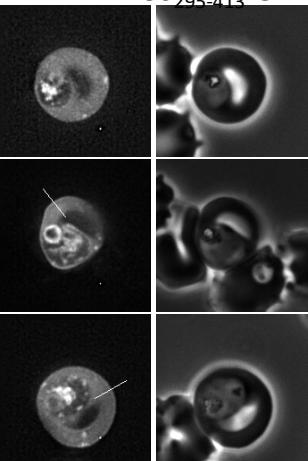
Fold difference at membrane: 0.98  
St. dev.: 0.13

J HT:PFD80<sub>C-term</sub>:GFP

Fold difference at membrane: 1.97  
St. dev.: 0.49

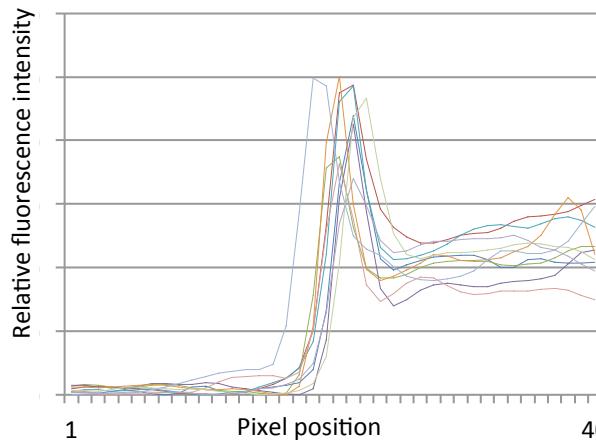
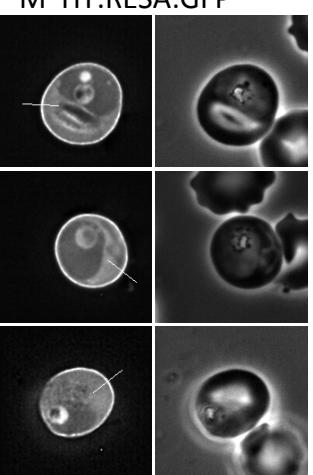
K HT:PFD80<sub>PRESAN</sub>:GFP

Fold difference at membrane: 0.96  
St. dev.: 0.10

L HT:PFD80<sub>295-413</sub>:GFP

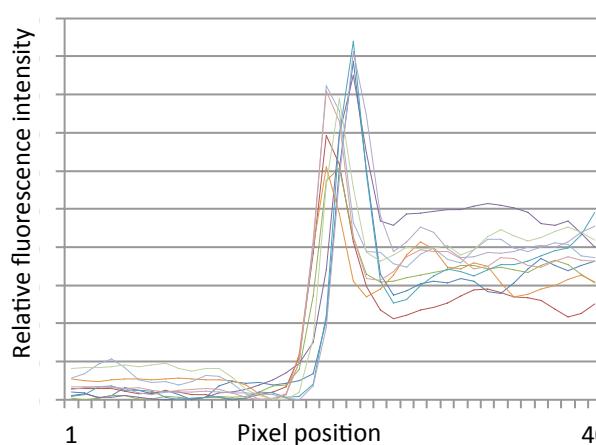
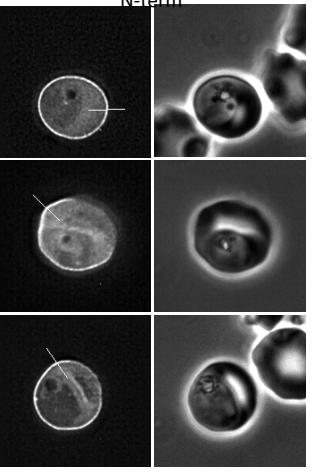
Fold difference at membrane: 1.01  
St. dev.: 0.13

M HT:RESA:GFP



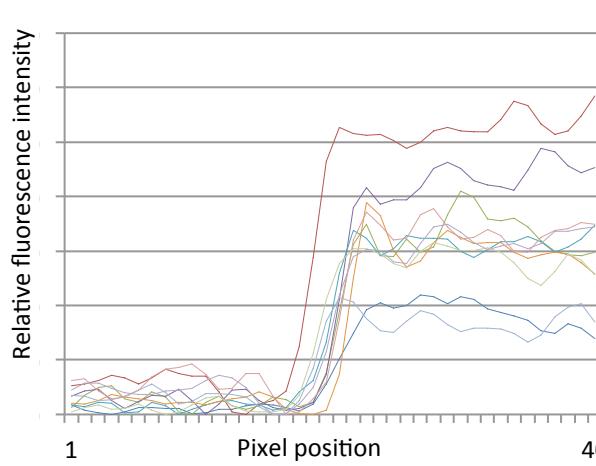
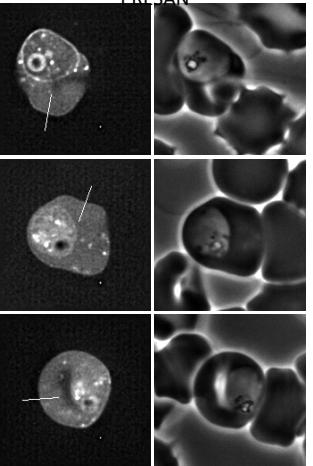
Fold difference at membrane: 2.08  
St. dev.: 0.34

N RESA<sub>N-term</sub>:GFP



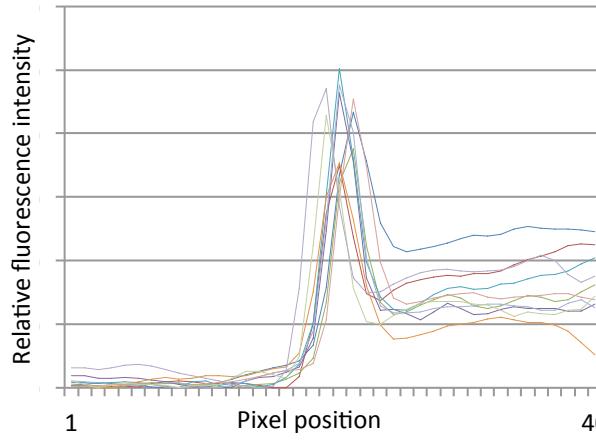
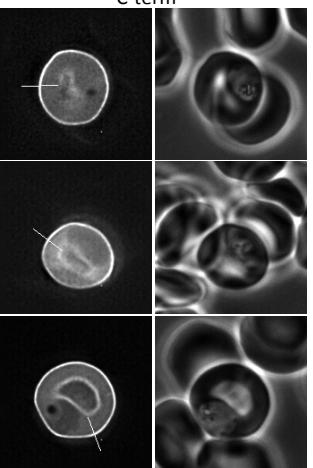
Fold difference at membrane: 2.35  
St. dev.: 0.43

O RESA<sub>PRESAN</sub>:GFP



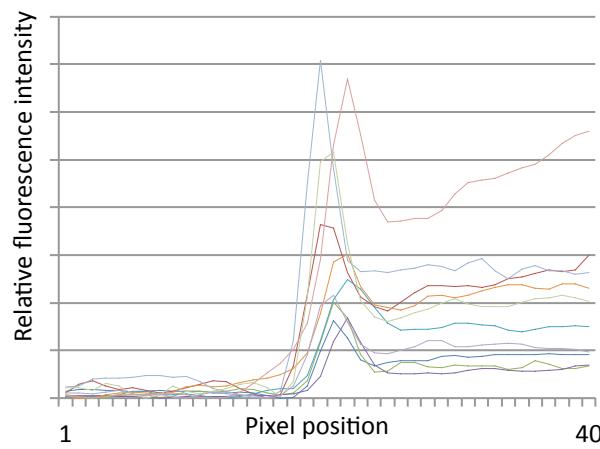
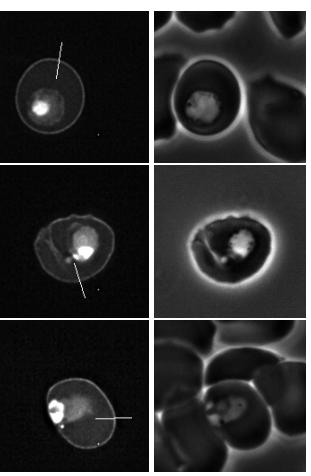
Fold difference at membrane: 1.10  
St. dev.: 0.18

P RESA<sub>C-term</sub>:GFP

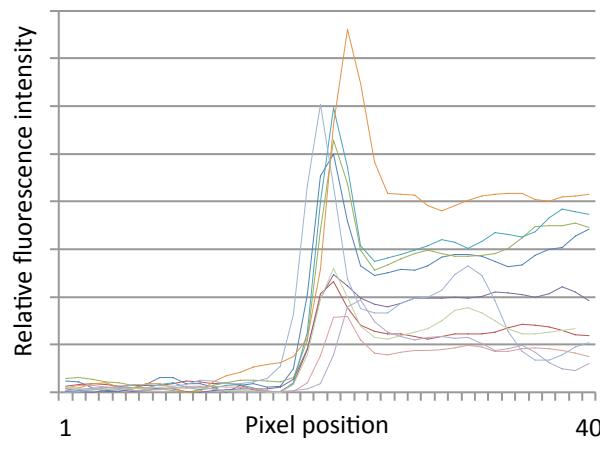
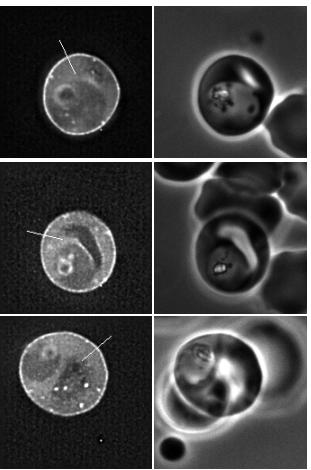


Fold difference at membrane: 3.08  
St. dev.: 0.78

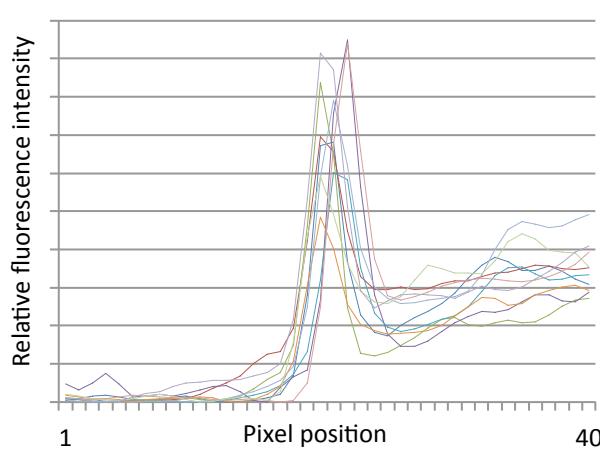
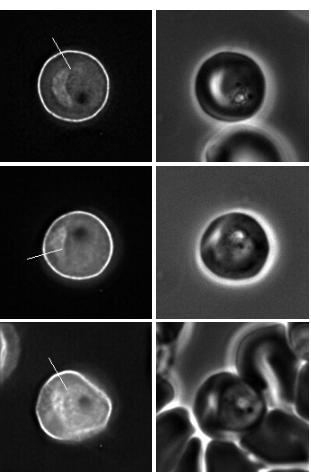
**Q PKH\_103230:GFP  
expressed in *P. knowlesi***



**R PKH\_103230:GFP  
expressed in *P. falciparum***



**S HT:PVX\_003555<sub>807-end</sub>:GFP**



**Supplementary figure 1**

Additional images of parasites expressing PHIST:GFP proteins. The left- and right-hand images show GFP localisation and a phase contrast image, respectively. The white line on each image is a 40 pixel line used for extraction of relative fluorescence intensity profiles. Plots show the relative fluorescence intensity profiles of 10 cells for each respective cell line (the lowest pixel intensity value was set as zero for the purpose of plotting data). The position of the pixels along the line relative to the infected erythrocyte are highlighted in (A). The region used for calculating mean background fluorescence (pixels 1-5), the range used for identifying the maximum intensity pixel at the membrane (between pixels 15 and 25) and the region used for calculating mean cytosolic fluorescence (pixels 30-35) are marked in (A). The mean fold difference and standard deviation in fluorescence intensity are also shown for each cell line. The identity of each parasite line is indicated above the respective images.